

OResults of Radioactive Material Monitoring of Aquatic Organisms (Location H in Lake Akimoto)

<Location H in Lake Akimoto: Samples collected>

Items Locations	General items		Radioactive materials			
	Water	Sediment	Water (Cs)	Water (Sr)	Sediment (Cs)	Sediment (Sr)
H-1	○	○	○	○	○	○

<Location H in Lake Akimoto: Site measurement item>

Items Locations	Latitude and longitude of the location		Survey date and time			Water	Sediment				Other	
	Latitude	Longitude	Date	Time (water)	Time (sediment)	Water temperature (degrees C)	Sediment temperature (degrees C)	Property	Color	Contaminants	Water depth (m)	Secchi disk depth (m)
H-1(Surface layer)	37.6575°	140.1264°	2018/10/18	11:36	11:50	17.4	13.1	Ooze	7.5Y 4/2	Plant pieces	11.5	3.5
H-1(Bottom layer)						14.5						

<Location H in Lake Akimoto: General survey items/Analysis of radioactive materials Water>

Items Locations	Latitude and longitude of the location		Survey date and time		pH	BOD (mg/L)	COD (mg/L)	DO (mg/L)	Electric conductivity (mS/m)	Salinity	TOC (mg/L)	SS (mg/L)	Turbidity (FNU)	Cs-134 (Bq/L)	Cs-137 (Bq/L)	Sr-90 (Bq/L)
	Latitude	Longitude	Date	Time (water)												
H-1(Surface layer)	37.6575°	140.1264°	2018/10/18	11:36	7.2	2.0	3.2	8.5	4.6	0.03	1.7	<1	1.3	N.D.(0.0015)	0.0075	-
H-1(Bottom layer)					7.0	1.3	3.2	9.6	4.8	0.03	1.6	2	1.8	N.D.(0.0014)	0.0072	0.0014

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<Location H in Lake Akimoto: General survey items/Analysis of radioactive materials Sediment>

Items Locations	Latitude and longitude of the location		Survey date and time		pH	Redox potential E _{SOIL} (mV)	Water content (%)	IL (%)	TOC (mg/g-dry)	Soil particle density (g/cm ³)	Grain size distribution								Cs-134 (Bq/kg-dry)	Cs-137 (Bq/kg-dry)	Sr-90 (Bq/kg-dry)
	Latitude	Longitude	Date	Time (sediment)							Gravel (2-75mm) (%)	Coarse sand (0.85-2mm) (%)	Medium sand (0.25-0.85mm) (%)	Fine sand (0.075-0.25mm) (%)	Silt (0.005-0.075mm) (%)	Clay (Less than 0.005mm) (%)	Median grain diameter (mm)	Maximum grain diameter (mm)			
H-1	37.6575°	140.1264°	2018/10/18	11:50	6.6	176	63.7	9.7	30.1	2.546	0.0	0.0	0.1	0.1	64.4	35.4	0.0081	2.0	120	1300	1.4

Note) N.D. means to be below the detection limit and figures in parentheses show the detection limit.

<Location H in Lake Akimoto: Analysis items Aquatic organisms>

Locations	Sampling point	Latitude and longitude of the location		Sampling date	Division	Class	Order	Family	Scientific name	English name	Population	Sample weight (kg-wet)	Note			Radioactive cesium (Bq/kg-wet)			Sr-90 (Bq/kg-wet)
		Latitude	Longitude										Growth stage	Stomach contents	Measurement site	Total	Cs-134	Cs-137	
H-1 H-2 H-3	In the lake	37.6575°	140.1264°	2018/11/7	Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	5	0.73	Mature fish	-	-	38.6	3.6	35	-
		37.6616°	140.1226°		Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Hemibarbus barbus</i>	Hemibarbus barbus	4	1.6	Immature fish, Mature fish	Obscure digesta	Viscera removed	36.6	3.6	33	1.2
		37.6653°	140.1329°		Vertebrata	Osteichthyes	Salmoniformes	Osmeridae	<i>Hypomesus nipponensis</i>	Japanese smelt	55	0.27	Mature fish	-	-	12	N.D.(1.4)	12	-
		37.6653°	140.1329°		Vertebrata	Osteichthyes	Salmoniformes	Salmonidae	<i>Salvelinus leucomaenis</i>	Char	5	1.7	Mature fish	Japanese smelt	Viscera removed	33.3	2.3	31	0.36
H-3	In the lake and Inflowing rivers	37.6653°	140.1329°	2018/10/18	Algae/plant	-	-	-	-	Riverbed Deposits (Include algae)	-	0.011	-	-	-	17	N.D.(13)	17	-
					Vertebrata	Osteichthyes	Cypriniformes	Cyprinidae	<i>Tribolodon hakonensis</i>	Japanese dace	15	0.011	Immature fish	-	-	4.3	N.D.(4.8)	4.3	-
				2018/10/19	Vertebrata	Osteichthyes	Perciformes	Centrarchidae	<i>Lepomis macrochirus</i>	Bluegill	4	0.0027	Immature fish	-	-	N.D.	N.D.(7.1)	N.D.(7.8)	-
					Vertebrata	Osteichthyes	Perciformes	Gobiidae	<i>Gymnogobius urotaenia</i>	Goby	4	0.042	Immature fish	-	-	31	N.D.(3.4)	31	-
				2018/10/18	Coarse Particulate Organic Matter	-	-	-	-	Bottom fallen leaves	-	0.18	-	-	-	9.4	N.D(1.7)	9.4	-
					Algae/plant	-	-	-	-	Plankton (Planktonic algae)	-	0.013	-	-	-	7.7	N.D(2.4)	7.7	-
H-4	Within the lake and rivers in the vicinity	37.6551°	140.1181°	2018/10/18	Arthropoda	Malacostraca	Decapoda	Atyidae	<i>Paratya improvisa</i>	Freshwater shrimp	330	0.062	Juvenile, Imago	-	-	27	N.D(2.8)	27	-
					Mollusca	Bivalvia	Unionoida	Unionidae	<i>Cristaria plicata</i>	Cristaria plicata	3	0.86	Imago	-	Molluscosus part	6.6	N.D(1.5)	6.6	-

*1: Organisms were collected in or around the targeted water areas.

*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

*3: For a sample made of multiple types of aquatic organisms, the English name of the dominant one largest in number is underlined.

*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.

*5: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40µm-mesh).

*6: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.

*7: N.D. means to be below the detection limit and figures in parentheses show the detection limit.

*8: Activity concentrations include counting errors, but the details are omitted here.